

REMARKS

I. 35 U.S.C. §102(e) Rejections

Claims 1, 4-13, 18-21, 24-33, 38-42, and 44-45 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,584,541 to Friedman et al. In this amendment, Applicants have amended independent Claims 1, 21, 41, and 44 to include elements similar to those in Claims 15 and 35, which were not rejected under 35 U.S.C. § 102(e) as being anticipated by Friedman et al. In view of these amendments, Applicants respectfully submit that the 35 U.S.C. § 102(e) rejections based on Friedman et al. are now moot.

II. 35 U.S.C. §103(a) Rejections

Independent Claims 1, 21, 41, and 44 were rejected under 35 U.S.C. §103(a) as being unpatentable over the proposed combination of EP1056287 to Henry et al. and U.S. Patent No. 6,034,882 to Johnson et al. Independent Claims 41 and 44 were also rejected under 35 U.S.C. §103(a) as being unpatentable over the proposed combination of U.S. Patent No. 5,966,495 to Takahashi et al. and U.S. Patent No. 5,915,167 to Leedy. Applicants respectfully request reconsideration and withdrawal of these rejections for the reasons set forth below.

A. Proposed Combination of Henry et al. and Johnson et al.

1. Independent Claims 1 and 41

Before turning to the rejections, Applicants note that they have amended independent Claims 1 and 41 to clarify the claims. Specifically, Applicants have amended independent Claims 1 and 41 to recite the additional acts of connecting the memory device to a digital media playback device and playing the digital media file with the digital media playback device. Applicants have further made clear that the digital media source that field-programs the memory device with the digital media file is not a dedicated playback device for the digital media file.

Applicants' specification provides several examples of how the invention recited in amended independent Claims 1 and 41 can be used. In one example, the digital media source is a kiosk in a retail store or a shopping center, and the user selects a song (a digital media file) by typing-in the song title via the kiosk's user interface device. After the kiosk programs the song into a memory device, the user removes the memory device and can play the song on a separate digital media playback device (e.g., the user's digital audio player, computer, etc.). Accordingly, in this embodiment, the user's use of the digital media source is only temporary (to program the memory device with a song) and is not intended to be the dedicated playback device for the song. Indeed, the very nature of a kiosk is that it is to be used by several users and, accordingly, is not intended to be the dedicated playback device for any one song or any one user.

In another example, an employee of a video store uses a digital media source to select a movie to be stored in a memory device. After the digital media source programs the movie into the memory device, the employee gives the memory device to a customer, who can purchase or rent the stored movie. The customer would then connect the memory device to his digital media playback device (e.g., the customer's video player, computer, etc.) to watch the movie. As in the above example, the digital media source is not intended to be the dedicated playback device for the digital media file. To the contrary, the digital media source is intended to be used to customize additional memory devices for other customers. In yet another example, a book store uses a digital media source to mass customize a book on several memory devices for distribution to customers, who would read the book on their own playback device. Again, the digital media source is not intended to be the dedicated playback device for the digital media file.

In contrast, the video playback apparatus (the purported digital media source) in Henry et al. *is* a dedicated playback device for digital media files programmed into the device. Henry et

al. discloses a video playback apparatus that programs a digital video file in a memory device. As suggested by its name, the video playback apparatus not only programs the digital video file in the memory device, but it also serves as a dedicated playback device for the digital video file. In Henry et al., the digital video file contains advertising or information programming to be played at a shopping complex or office block. The digital video file can also contain instructions on when to play various tracks of the video file based on the time of day in order to reach expected likely viewers. For example, a video program targeting office workers can be played during rush hour, while a video program targeting housewives can be played during the day. When it is desired to change the video program (i.e., when a new advertisement is made available for a new product), the memory device in the video playback apparatus is rewritten with the new video file. The new video file is then played by the video playback apparatus, as described above.

Applicants note that Claims 15 and 35 recite connecting the memory device with a digital media playback device and playing the digital media file with the digital media playback device. Those claims are now cancelled because similar elements were added to the independent claims. The Office Action rejected Claims 15 and 35 in view of paragraphs 8 and 35 of Henry et al. However, those paragraphs do not teach playing a digital media file from the memory device using a device separate from the digital media source that programmed the memory device. Paragraph 8 describes how the memory device can be re-written from a remote source connected with the video playback apparatus (the purported digital media source) and later played by the video playback device, and paragraph 35 describes how a video data file is transmitted from a remote source library to the video playback apparatus for playback. Neither of these paragraphs

teaches playing a digital media file from the memory device using a device other than the video playback apparatus.

In summary, because Henry et al. is missing several elements from the amended independent claims,¹ Applicants respectfully request removal of the rejections of independent Claims 1 and 41 based on the proposed combination of Henry et al. and Johnson et al.

2. Independent Claims 21 and 44

Independent Claims 21 and 44 have been amended for clarity similarly to Claims 1 and 41, respectively. Accordingly, Applicants respectfully submit that independent Claims 21 and 44 are also patentable over the proposed combination of Henry et al. and Johnson et al. for the reasons set forth above with respect to independent Claims 1 and 41.

As an additional ground of patentability, Applicants note that independent Claims 21 and 44 recite providing a solid-state memory device comprising a memory array comprising a plurality of *write-once*, field-programmable memory cells. These claims were rejected based on the proposed combination of Henry et al. and Johnson et al. As a first matter, Applicants note that the write-once element of these claims was not addressed in the Office Action. Page 6 of the Office Action states that independent Claims 21 and 44 are rejected and then discusses various elements of independent Claim 1. However, independent Claim 1 does not recite write-once memory cells. Accordingly, the Office Action does not contain a complete rejection of independent Claims 21 and 44. For that reason alone, Applicants respectfully submit that the rejections of independent Claims 21 and 44 should be removed.

¹ In the rejections of the independent claims, Johnson et al. was cited merely for its teaching of a memory device.

Further, as admitted in the Office Action², Henry et al. does not teach write-once memory cells. Applicants respectfully submit that the one skilled in the art would not have been motivated to modify Henry et al. to include the write-once memory cells taught by Johnson et al. because Henry et al. teaches away from such a modification. In paragraphs 4 and 5 in the background section, Henry et al. criticizes write-once memory devices:

A further problem is that generally speaking once a video programme has been recorded[,] it is fixed and is not easy to change. . . . This relatively fixed nature of the video content means that existing systems are very inflexible. . . . [T]hey are not suitable for showing material that needs regular updating such as advertising and information programming. They are also not very suitable for applications that require user interactivity.

To overcome these limitations, Henry et al. discloses the use of a write-*many* device (instead of a write-*once* device). Such a device provides Henry et al. with the re-writability and flexibility that Henry et al. desires. Applicants respectfully submit that one skilled in the art would not have been motivated to replace the write-many memory device in Henry et al. with a write-once memory device because such a replacement would re-introduce the very problem that Henry et al. sought to overcome.

3. The Dependent Claims

By virtue of their dependency, the claims dependent upon independent Claims 1, 21, 41, and 44 are patentable for at least the reasons described above with respect to Claims 1, 21, 41, and 44. Further, the dependent claims recite additional elements that provide additional grounds of patentability. For example, dependent Claim 18, which depends on independent Claim 1, recites write-once memory cells. The Office Action admitted that Henry et al. does not teach

² In the rejection of dependent Claim 18, which depends on independent Claim 1 and recites write-once memory cells, the Office Action admitted that Henry et al. does not teach write-once memory cells. The Office Action relied upon Johnson et al. in an attempt to cure that deficiency.

write-once memory cells and relied upon Johnson et al. in an attempt to cure that deficiency.

However, as described above with respect to independent Claims 21 and 44, one skilled in the art would not have been motivated to replace the write-many memory cells in Henry et al. with write-once memory cells because Henry et al. teaches away from such a replacement.

Additionally, dependent Claims 7 and 27 recite that the digital media file that is field-programmed into the memory device is manually selected by a user using the digital media source. This is not taught in the proposed combination. In most of the embodiments in Henry et al., a source remote from the video playback apparatus (the purported digital media source) selects a digital media file for storage in the memory device. Paragraph 35 of Henry et al. discusses an embodiment in which a user makes a selection of a video track to be played from a remote source. However, it appears that the selected video track is only played by the video playback apparatus and is not stored in the memory device. Paragraph 35 states that the memory device “comprise[s] *only* a video track playlist” (emphasis added). After the playlist is presented to the user and the user selects a track from the playlist, “[t]he video data file corresponding to this track is then requested by the apparatus from a remote source library which transmits the video data file to the apparatus *for playback*” (emphasis added). There is no teaching that the actual video data file is stored in the memory device. In fact, Henry et al. explicitly states that the memory device “comprise[s] *only* a video track playlist” (emphasis added). Accordingly, Henry et al. does not teach field-programming the memory device with a digital media file that is selected by a user using the digital media source, as recited in dependent Claims 7 and 27.

B. Proposed Combination of Takahashi et al. and Leedy

Independent Claims 41 and 44 were rejected under 35 U.S.C. §103(a) as being unpatentable over the proposed combination of U.S. Patent No. 5,966,495 to Takahashi et al. and

U.S. Patent No. 5,915,167 to Leedy. Applicants respectfully request reconsideration and withdrawal of these rejections for the reasons set forth below.

1. Independent Claims 41 and 44

As discussed above with respect to the rejections based on Henry et al. and Johnson et al., Applicants have amended independent Claims 41 and 44 to clarify the claims. Specifically, Applicants have amended independent Claims 41 and 44 to recite the additional acts of connecting the memory device to a digital media playback device and playing the digital media file with the digital media playback device. Applicants have further made clear that the digital media source is not a dedicated playback device for the digital media file.

These acts are not shown in the proposed combination of Takahashi et al. and Leedy. Takahashi et al. is directed to a recording and reproducing apparatus, and Leedy is directed to a memory device. The proposed combination does not teach each of the elements recited in amended independent Claims 41 and 44. Accordingly, Applicants respectfully request that the rejections of independent Claims 41 and 44 based on the proposed combination of Takahashi et al. and Leedy be withdrawn.

2. Additional Ground of Patentability for Independent Claim 41

Independent Claim 41 recites a three-dimensional memory array of vertically-stacked field-programmable memory cells. Pages 11 and 12 of the Office Action state that independent Claim 41 was rejected in view of the proposed combination of Takahashi et al. and Leedy, but nowhere in the Office Action is there an assertion that either of those references teaches a three-dimensional memory array of vertically-stacked field-programmable memory cells. The discussion in the Office Action is merely about whether Takahashi et al. or Leedy teaches write-once memory cells — an element not recited in independent Claim 41. Because the Office

Action does not assert that the proposed combination of Takahashi et al. and Leedy teaches a three-dimensional memory array of vertically-stacked field-programmable memory cells, Applicants respectfully submit that the rejection of independent Claim 41 should be removed.

Additionally, Applicants note that Leedy does not teach a three-dimensional memory array of vertically-stacked field-programmable memory cells. Leedy describes a memory in which several individual integrated circuits are stacked and secured together to form a single structure. Although the shape of the overall structure is described as “three-dimensional” (because it is a stack of several individual integrated circuits), the memory arrays within the structure are not three-dimensional. Each of the individual integrated circuits in the stack has a two-dimensional memory array, and stacking individual integrated circuits together does not transform these individual two-dimensional memory arrays into a three-dimensional memory array, as recited in the claims. Accordingly, the proposed combination of Takahashi et al. and Leedy does not yield a three-dimensional memory array of vertically-stacked field-programmable memory cells, as recited in independent Claim 41.

As an additional ground of patentability, Applicants have added new dependent Claim 47 to specifically recite that the three-dimensional memory array of vertically-stacked field-programmable memory cells comprises a plurality of layers of memory cells stacked vertically above one another in a *single* integrated circuit. This is clearly different from the three-dimensional stack in Leedy, which contains memory cells located above *multiple* integrated circuits. Accordingly, if the rejection of independent Claim 44 is maintained, Claim 47 should be indicated to be allowable.

III. Double Patenting Rejection

Claim 44 was rejected under the judicially-created doctrine of obviousness-type double patenting over Claim 1 of U.S. Patent No. 6,584,541. In this amendment, Applicants have amended independent Claim 44. In view of this amendment, Applicants respectfully submit that the obviousness-type double patenting rejection is now moot.

IV. Submission of Copy of Declaration

The Office Action requested that Applicants submit a copy of the previously-submitted Declaration for this application. In accordance with this request, Applicants submit such a copy.

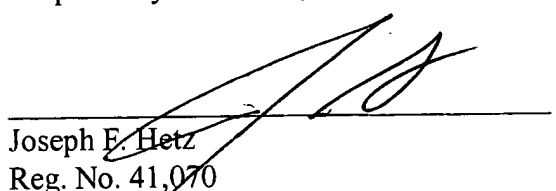
V. Conclusion

In view of the foregoing amendments and remarks, Applicants respectfully submit that the present application is in condition for allowance. Reconsideration is respectfully requested. Applicants note that while the above arguments were directed to only some elements in the independent claims, Applicants reserve the right to argue additional grounds of patentability provided by other elements in the independent claims and by elements in the dependent claims. Applicants also reserve the right to present arguments as to why one skilled in the art would not have been motivated to combine the references applied in the Office Action.

If the Examiner has any questions or believes that a telephone interview would be helpful,
the Examiner is invited to contact the undersigned attorney at (312) 321-4719.

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